Remarks

Claims 1-4, 6-12, 14-16, and 18 are in the case. Claims 5, 6, and 17 are cancelled.

Claims 10-12, 14, and 18 have been allowed.

Rejections Under 35 U.S.C. § 102

In paragraph 2 of the Office Action, claims 1-2 and 5-6 were rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent 258,259 ("Staples").

Regarding currently amended claim 1, claim 1 is amended to incorporate the limitation of claim 5, specifically that "the apparatus be constructed of rail steel." In rejecting claim 5 (which depended on claim 1), the Office Action cites Staples as disclosing "the railroad apparatus [of claim 1] being constructed of a single piece steel in accordance with claims 5-6."

The rejection of claim 5 (now commensurate in scope with amended claim 1) is improper. The Office Action rejection cites Staples as disclosing an railroad apparatus that is constructed of "steel." However, claim 5 required, *inter alia*, that "the apparatus be constructed of rail steel." As used by those skilled in the art of railroads, rail steel is different than steel. The term "rail steel" has a well-established meaning in the art and refers to a very specific type of steel that falls within well-accepted industry specifications and criteria. The industry accepted specifications/definition for "rail steel" are set forth by the American Railway Engineering Association ("AREA"). A copy of the AREA's specifications/definition for rail steel is attached hereto as Exhibit A for the Examiner's review.

Turning to the Staples reference, the Staples reference is silent as to the particular material of which the railroad frog is constructed. Contrary to the assertion set forth in the Office Action, there is absolutely no mention in Staples that the railroad frog is, or can be, constructed of steel. However, the Staples reference does state that "my frog, when the proper rolls are once fitted up, can be produced from the best material used for making railroad-rails as easily as the rails themselves." *See Staples*, lines 72-78. Thus, while Staples teaches making the railroad frog out of "the best material used for making railroad-rails," this ambiguous phrase is

far from teaching the use of any specific material for construction. Railroad-rails can be made from a wide variety of metals and/or alloys, thus, "the best material used for making railroad-rails" can encompass almost any type of metal and/or alloy. Clearly the Staples reference does not teach using the specific material of "rail steel" to construct the railroad frog, as this term is understood and used by those skilled in the art.

Furthermore, none of the other references cited in combination with Staples supply the noted deficiency in the Staples reference. For example, United States Patent 5,042,755 ("Testart") teaches constructing a crossing frog out of manganese containing austenitic steel. *See Testrart*, col. 3, lines 34-37. European Patent 0 602 728 ("Connelly") teaches constructing a crossing frog out of austenitic manganese steel. *See Connelly*, abstract and throughout. The materials recited in the Testart and Connelly references were specifically chosen for constructing the crossing frogs in those references because of the material's characteristics, specifically the hardness and durability of the austenitic manganese steel. Because the railroad frog is point of increased impact and stress within a rail line, prior to Applicant's invention, it was thought throughout the art to be desirable to construct the railroad frogs out of a harder and more durable metal/alloy, such as austenitic manganese steel. Applicant's invention of constructing the crossing frog out of "rail steel" is counter-intuitive to all of the prior art cited because rail steel is considered a "softer" metal in the art. Thus, one skilled in the art would not be motivated to use rail steel to construct a railroad crossing frog, as Applicant teaches, and now claims in claim 1.

Moreover, it was doubted whether a suitable railroad crossing frog could even be constructed of rail steel. If necessary, the Applicant can supply Affidavits and/or Declarations from others skilled in the art to that effect, if the Examiner believes that this would move the case along more expeditiously.

For these reasons, the rejection of claim 5 (now currently amended claim 1) over Staples under 35 U.S.C. § 102(b) is improper. It is respectfully requested that the rejection be withdrawn and claim 1 allowed.

DOCKET NO. 132258 CMI-0001-100
Serial No. 10/735,995
Response to Office Action dated Nov. 16, 2004

Rejections Under 35 U.S.C. § 103

In paragraph 5 of the Office Action, claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Staples in view of Testart. Specifically, the Office Action states that Staples teaches all of the limitations of claim 15 except for "a railroad frog apparatus comprising welding of the connection plug to the rail." The Office Action turns to Tetsart to supply the deficiency. The rejection of claim 15 is improper for two reasons.

First, as currently amended, claim 15 now requires that the railroad frog apparatus be constructed from a single piece of rail steel. As discussed above, neither Staples nor testart teach or suggest such a material of construction.

Second, the combination of the references is both improper and, even when combined do not teach all of the limitations of claim 15. Claim 15 requires, *inter alia*, the steps of "butting the running rails against the corresponding connection plug" and "welding each running rail to the connection plug it is butted against." The Staples reference specifically states that the Staples railroad frog is designed to "receive one end of the angle-bar or fish-plate by which the connection is made, and punch or drill holes to receive the bolts which hold said fish plates in place, in the ordinary manner." *See Staples*, lines 15-24. Thus, Staples fails to teach or suggest the steps of "butting the running rails against the corresponding connection plug" and "welding each running rail to the connection plug it is butted against," as required by claim 15.

Turning to Testart, Testart does not supply the noted deficiency of Staples. As mentioned above, the crossing frog of Testart is constructed of manganese containing austenitic steel. *See Testrart*, col. 3, lines 34-37. As a result of constructing the railroad frog of Testart out of manganese containing austenitic steel, Tetsart recognizes that the connection of the running rails to the frog must be accomplished "by means of an intermediate part produced from austenitic steel having a low carbon content." *See Testrart*, col. 3, lines 27-33. The use of a multiple joint weld is the exact problem which the present invention is intended to remedy. Thus, Testart does not teach, nor suggest, "butting the running rails against the corresponding connection plug" and "welding each running rail to the connection plug it is butted against, as required by claim 15.

DOCKET NO. 132258 CMI-0001-100 **PATENT**
Serial No. 10/735,995
Response to Office Action dated Nov. 16, 2004

In fact, such a direct connection of the running rail to the Testart crossing frog is impossible. The Connelly crossing frog suffers from the same problem.

Therefore, the rejection of claim 15 is improper. It is respectfully requested that the rejection be withdrawn.

It is believed that the all grounds of rejection and objection have been traversed or obviated, and that all of the rejections and objections should be withdrawn.

COZEN O'CONNOR

BY: BRIAN L. BELLES
Reg. No. 51,322
Cozen O'Connor
The Atruim
1900 Market Street
Philadelphia, PA 19103
Telephone 215 665-7244
Facsimile 215 701-2044

Date: 2/16/05
BLB/kf